

## REMARKS

### Priority Claim

A copy of PCT/SE02/01071 is included herewith, as is a certified copy of Swedish application 0101949.6, thereby perfecting the present Application's priority claim (see relevant portion of 1895.01 immediately below):

#### **1895.01 Handling of and Considerations In the Handling of National Applications Under 35 U.S.C. 371 and 35 U.S.C. 111(a) Continuations and Continuations-In-Part of a PCT Application**

##### **CONTINUATION, CIP, OR DIVISION OF INTERNATIONAL APPLICATION FILED UNDER 35 U.S.C. 111(a)**

Rather than filing a national stage application, a continuing application (*i.e.*, continuation, C-I-P, or division) under 35 U.S.C. 111(a) of the international application may be filed. Pursuant to 35 U.S.C. 365(c), a regular national application filed under 35 U.S.C. 111(a) and 37 CFR 1.53(b) (not under 37 CFR 1.53(d) or former 37 CFR 1.60 or 1.62) may claim benefit of the filing date of an international application which designates the United States.

A typical time line involving a continuing application filed during the pendency of an international application is illustrated as follows:

The continuing application must be filed before the international application becomes abandoned as to the U.S. as set forth in 37 CFR 1.494 and 1.495. An appropriate sentence (such as "This is a continuation of International Application PCT/EP90/00000, with an international filing date of January 4, 1990, published in English under PCT Article 21(2) and now abandoned.") must appear in the first sentence of the specification. In addition, all other conditions of 35 U.S.C. 120 (such as having at least one common inventor) must be satisfied. *A copy of the international application (and an English translation) may be required by the examiner to perfect the claim for benefit under 35 U.S.C. 120 and 365(c) if necessary, for example, where an intervening reference is found and applied in a rejection of one or more claims.*

A claim for foreign priority under 35 U.S.C. 119(a)-(d) must be made in the continuing application in the same manner as a claim for foreign priority under 35 U.S.C. 365(b) in a national stage application. In the same manner as with a national stage application, a foreign priority claim is proper if (1) a claim for foreign priority was made in the international application, and (2) the foreign application was filed within 12 months prior

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to the international filing date. A certified copy of any foreign priority document must be provided by the applicant if the parent international application has not entered the national stage under 35 U.S.C. 371 (the photocopy received from the International Bureau cannot be used). If the parent international application has entered the national stage under 35 U.S.C. 371, the applicant, in the continuing application, may state that the priority document is contained in the national stage application.

**Remarks Regarding Claims Amendments:**

Claim 1 has been amended for clarification to place the present application in condition for allowance.

Claims 1 - 5 are pending in the present application.

**In Response to the Office Action:**

**Rejection Under 35 U.S.C. § 102:**

The Office Action indicates rejection of claims 1 - 4 under 35 U.S.C. §102(b) as being anticipated by US Patent No. 6,390,779 of *Cunkelman*.

The following tabular summary provides at least two ways in which *Cunkelman* fails to teach requirements of claim 1 of the present invention. Omissions from *Cunkelman* disqualifies it as an anticipating reference under 35 U.S.C. §102(b).

Comparison of the Present Invention with Teachings of *Cunkelman*

Claims Requirements of the Present Invention	<i>Cunkelman</i> U.S. 6,390,779
Claim 1 recites “a second control member signally connected to a pressure sensor - - - said second control member <u>using said pressure sensor</u> to establish whether the compressor is operating - - .”	<i>Cunkelman</i> uses outputs of sensors, located on and in a compressor to monitor the compressor’s condition (see e.g., Column 1, lines 8 - 13).
Claim 1 requires “analysis of recorded pressure and pressure changes in the pressure tank.” to indicate the operative condition of the compressor.	<i>Cunkelman</i> monitors pressure signals from multiple sensors (14d, 14e) on a main reservoir and an unloader line and uses data from the sensors to operate a magnet valve 30 (Column 3, lines 56 - 65).

In response to the Office Action applicants have considered the Examiner’s selection of *Cunkelman* (U.S. 6,390,779) but respectfully disagrees that it meets the teaching requirements of an anticipating reference under 35 U.S.C. §102. For anticipation under 35 U.S.C. § 102, “each and every element” of the claimed invention must be found either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) and references cited therein.

Rejection of claims 1 - 4 of the present invention appears to rely upon figures of the reference of *Cunkelman*. The Office Action, for example, alleges that “*Cunkelman* discloses an apparatus for controlling and monitoring an air compressor having a first control member, computer (10) and a second control member, microprocessor (40). *Cunkelman* discloses a pressure sensor (14) in the main reservoir (e) signally connected to the second control member. The first control member is inherently active when controlling the compressor and passive when

not controlling the compressor. Thus, (according to the Office Action) *Cunkelman* discloses all of the structure claimed by applicant.”

However, the Office Action provides no information to identify where each and every element of the claimed invention is found either expressly or inherently described in the applied reference of *Cunkelman*. It appears that no attempt has been made to address limitations of claims 2 - 4, and it is respectfully asserted that such limitations are not found in *Cunkelman*.

As indicated in the previous tabular summary, *Cunkelman* fails to teach at least two limitations of claim 1 of the present invention. Omissions from the reference were evident after careful review, which showed that Figure 1 and Figure 2 of *Cunkelman* teach the use of sixteen sensors for monitoring various aspects of an air compressor and associated apparatus. Monitoring activities according to *Cunkelman* differ from the present invention, which uses pressure data from a single sensor to signal the condition of a compressor unit as active or inactive.

Having considered figures of *Cunkelman*, applicants reviewed the specification of the reference even though the Office Action was silent regarding basis in the specification for rejection of claims of the present invention. Several key teachings of *Cunkelman* were revealed by this review including that an air compressor arrangement uses sixteen sensors to provide information, “on the operating condition of the air compressor and (such) associated apparatus” (Column 1, lines 8 - 13). The reference teaches an “intelligent” compressor providing its own diagnostics for an information processor that notes the occurrence of both cut-in and cut-out of the compressor” (Column 1, lines 64 - 67 and Column 2, lines 7 - 11). *Cunkelman* further teaches a plurality of sensors optionally reactive to temperature, pressure and miscellaneous properties (Column 2, line 66 to column 3, line 2). Of pressure sensing, *Cunkelman* teaches only that a computer uses pressure data to operate a magnetic valve used to load and unload an air compressor (Column 3, lines 56 - 65).

Regardless of other teachings, *Cunkelman* exhibits the deficiency referred to in paragraph [0006] of the present application, as filed (also as in published application U.S. 2004/0155055), which states that, “known systems, however, lack the possibility to verify whether or not the

compressor is actually supplying the compressed-air tanks in the system.” According to the teachings of *Cunkelman*, sensor 12 determines the operating condition of the compressor, but does not confirm delivery of compressed gas to the main reservoir. Pressure sensor 14 sends a signal to open or close a magnetic valve 30 but provides no indication that the compressor is in a condition to supply compressed air.

As indicated in the tabular summary, amended claim 1 of the present invention requires “said second control member using said pressure sensor to establish whether the compressor is operating.” The compressor arrangement of *Cunkelman* is incapable of meeting this requirement. Evidence shows that *Cunkelman* would need two sensors, i.e. a combination of a compressor condition sensor 12 and pressure sensor 14, to fulfill the role of a pressure sensor according to the present invention. Applicants submit that reduction in the number of sensors provides a patentable improvement over the reference. For this reason, contrary to the Office Action’s allegation, *Cunkelman* is incapable of satisfying functional requirements of the present invention.

Previous discussion provides evidence that *Cunkelman* fails to teach limitations of claim 1 and is silent regarding limitations of claims 2 - 4 of the present invention. Therefore, request is respectfully made for reconsideration and withdrawal of the rejection of claims 1-4 under 35 U.S.C. §102(b).

**Rejection of Claims for Alleged Obviousness Type Double Patenting:**

The Office Action includes provisional rejection of Claims 1-5 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2 and 7-10 of co-pending Application No. 10/707,334. Applicants submit that the provisional rejection is inappropriate for at least the following reasons:

To avoid joinder of inventions in a single application, 37 CFR 1.141(a) requires that, “Two or more independent and distinct inventions may not be claimed in one national application, - - .” Knowledge of this restriction led to the filing of two applications identified herein by application number 10/707,332 for the present application and application number 10/707,334 that is alleged to contain conflicting claims.

Giving consideration to 35 U.S.C. §101, which has been interpreted as limiting an inventor to only one patent per invention, and 37 CFR 1.141(a) that further emphasizes this requirement, the evidence shows that subject matter claimed by the 10/707,332 application is patentably distinct from that claimed by the 10/707,334 application for at least the following reasons:

1. The 10/707,334 application claims “control of a cooling fan” according to claim 2.
2. Claims 7 - 10 have dependency from claim 2 to address control of the cooling fan at a time when pressure measurements are used to establish the operating condition of the compressor. Although claims 7 - 10 include determination of the operating condition of the compressor and control of the cooling fan to occur together, these system functions are independent of each other.
3. The limitations of claims 7 - 10 operate together with control of the cooling fan, but the claimed invention of the 10/707,334 application still focuses on cooling. This application does not include a claim exclusively addressing a compressor system that has a control member using pressure measurement to establish the operating condition of the compressor. If it included such a claim the 10/707,334 application would violate 35 U.S.C. §101 and 37 CFR 1.141(a).
4. The 10/707,332 and 10/707,334 applications respectively claim a first invention corresponding to a compressor system using a control member responsive to a pressure sensor to

establish the operating condition of the compressor (10/707,332) and a second invention controlling a cooling fan in response to a cooling requirement (10/707,334). Reliance on claims 2 and 7-10 of the 10/707,334 application would leave unclaimed the system that establishes whether or not the compressor is operating regardless of cooling requirements. Clearly these inventions are independent and distinct from one another and satisfy the definitions of "independent and distinct" according to MPEP 802.01. As indicated above, compliance with current laws and regulations requires separate applications to claim the subject matter of each independent and distinct invention.

In view of the above, applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-5 under the judicially created doctrine of obviousness-type double patenting.

#### **CONCLUSION**

After review, the prior art made of record and not relied upon is not considered pertinent to applicants' disclosure because none of the references of Matsumoto et al. (U.S. 4,525,125), Smith (U.S. 4,576,552) and Lifson et al. (U.S. 6,210,119) teaches limitations of the present invention that provide differentiation from the applied reference of *Cunkelman* (U.S. 6,390,779).

Applicants have made an earnest attempt to respond to all the points included in the Office Action and, in view of the above, submit that the application is in condition for allowance. Consequently, request is respectfully made for reconsideration of the application and notification of allowance of claims 1-5 in the next paper from the Office.

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The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 14-1437, Order No. 00173.0046.PCUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner should directly contact the undersigned by phone to further the discussion.

Respectfully submitted,



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